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EXAMINER

HUISMAN, DAVID J

ART UNIT

PAPER NUMBER

2183

MAIL DATE

DELIVERY MODE

10/24/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No. 10/815,904	Applicant(s) VANNERSON ET AL.
Examiner DAVID J. HUISMAN	Art Unit 2183

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 21 October 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☒ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 1, 2, 5-8, 10-19, 21-26, 28, and 29, as set forth in the final rejection.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attached sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
13. ☐ Other: _____.

/David J. Huisman/
Primary Examiner, Art Unit 2183
October 22, 2008

Applicant argues on pages 10-11 of the after-final remarks in substance that:

"Specifically, Applicants submit that the combination does not at least describe a debug process that "manipulates at least three debug register bit fields of at least one processor control status register, the at least three register bit fields comprising a run field, a single step field, and a debug enable field that each comprise a single bit." The Office Action cites Deng as allegedly describing this feature. Deng's Figure 16 ("breakpoint control register") includes four bits (BE1-BE4) which "contain the four address breakpoint enables," a single step enable bit, and a global debugger enable bit amongst other bits (two bits for a stack pointer comparison function). (See Deng, col.911.21-26 and Fig. 16.). None of these is a single-bit run field. While the Office Action equates any one of the BE bits as the run field of claim 1, such a reading of eliminating the other three BE bits would render Deng as being "unsatisfactory for its intended purpose" and thus there would be "no suggestion or motivation" to make such a change to Deng. (See MPEP 2143.01.) Deng must be considered in its entirety, as required by MPEP 2141.02 and 2141, and Deng requires that each of the BE bits be used. For example, each of the BE bits are used in Fig. 2 when "[a]ddress breakpoint circuitry" compares four address breakpoint signals ("AD") with their respective breakpoint enable singles ("BE"). (See Deng, col.15 11.47-53 and Fig. 2.) Moreover, in order to be useful the BE bits clearly requires the use of a other bits, ADs, to be of any use whatsoever. (Id.) As such, a single BE bit cannot and does not describe Applicants claimed "run field." Additionally, neither Glew nor IBM describe this limitation.

Moreover, at least Deng and IBM are uncombinable. As discussed above, Deng requires the comparison of a plurality of address bits (AD) with breakpoint enable bits (BE). IBM "describes a technique which provides a breakpoint function in a processor without the use of extra comparison logic...[which would] periodically compare" a breakpoint register with an address." (IBM, emphasis added.) Thus, IBM teaches away from the combination of Glew, IBM, and Deng."

While fully considered, this argument has been deemed non-persuasive by the examiner for the following reasons:

- a) First, there is no claimed functionality associated with the claimed run field. It is simply a field named "run". Hence, any field in Deng may be called a "run" field, because there is no claimed functionality which distinguished the claimed run field from any other field in the prior art.
- b) Second, a single run field in Deng does not require the other run (BE) fields. Each bit corresponds to a particular address, and if the BE for that address is in a particular state, then that address will not cause a breakpoint. In Glew / IBM, a set breakpoint bit denotes a breakpoint is to occur (i.e., an address causes a breakpoint). The combination of references can then be useful to disable a particular breakpoint even if the breakpoint bit is set.

The examiner does not feel that IBM and Deng are uncombinable because if Deng can specify a breakpoint and then disable it, and IBM specifies a breakpoint (in a different manner by using a single bit), then it would still be obvious to not perform a breakpoint. One reason to disable it would be if a debugger wants to view a state of the system at a 3rd breakpoint, for instance, and the 1st two breakpoints do not matter at that particular time during debugging.

Regarding the claim amendments:

- a) In each of the independent claims, applicant should not claim "each breakpoint bit field" because "each" refers to every one of two or more considered individually. Hence, more than one breakpoint bit must exist for "each" to be proper. However, applicant previously claims "at least one breakpoint bit", which covers just a single breakpoint bit. Therefore, applicant should replace "each" with --the at least one--.
- b) The examiner erred in recommending replacing "that the" with "to which" in the independent claims. Instead, it should be replaced with --to which the at least one--.

Regarding the specification objection:

- a) On page 1 of the remarks, applicant is unclear as to what the Office Action is getting at in terms of the specification objection. First, the examiner would like to make it clear that this objection is not requiring applicant to make any changes to the claims, but to the specification. Applicant previously amended claim 1 such that at least three debug register bit fields are manipulated instead of added, or attached, to a control status register. However, applicant's specification still discloses adding (or attaching) fields to the register. These references should also be modified because applicant isn't adding / attaching them, but instead simply manipulating already existing fields, as now claimed in claim 1.